

# Alaska Department of Environmental Conservation

**Quarterly Report of** 

# Oil and Hazardous Substance Response

Volume 5 - Number 4

October 1 - December 31, 1999

# **Significant Responses This Quarter**



Derailment at Mile 268.8.



Placing sausage boom in creek, on west side of tracks.



Derailment at Mile 262.



Rig used to drill sentinel wells.

### Alaska Railroad Derailment, Canyon

Spill Date: October 31, 1999

Product/Quantity: 12,450 gal. Jet A fuel

Cause: derailment

An estimated 12,450 gallons of jet fuel was released as a result of a ten-car derailment north of Talkeetna. The freight train was pulling 49 tank cars loaded with approximately 20,000 gallons of jet fuel each. The remote location and heavy snows slowed the response and the cleanup efforts. The Alaska Railroad Corporation (ARRC) hired a spill response contractor to assist with the cleanup. Booms were placed to prevent migration of the fuel into nearby Indian Creek. Beaver ponds adjacent to the tracks served as a natural containment for much of the spilled fuel. Estimates indicate a 90-95% recovery figure. The Department is working with the ARRC on finalizing the winter/spring break-up monitoring plan for the site.

### Alaska Railroad Derailment, Gold Creek

Spill Date: December 22, 1999

Product/Quantity: 120,516 gal. JP 8 fuel

Cause: derailment

An estimated 120,516 gallons of jet fuel was released in a second derailment less than two months after the October 31 incident. Three locomotives and 13 loaded tank cars derailed. Heavy snows hampered the response for several days following the derailment. Contaminated snow was removed, but most of the spilled fuel soaked into the soil. The extent and location of the product was assessed using ground-penetrating radar and wells. Two-inch wells were drilled to help monitor migration of the product toward the Susitna River. Four-inch wells were drilled to recover product from the water table surface.

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## **Unocal Dillon Platform**

Spill Date: October 23, 1999

Product/Quantity: 400-500 gallons crude

Cause: leak in pipeline

A leak in a line 2.4 miles east of the Dillon

platform resulted in the release of an estimated 400-500 gallons of crude oil October 23rd. Cook Inlet Spill Response, Inc. (CISPRI) was activated and a joint overflight was done involving CISPRI, DEC, the USCG, and Unocal. Four response vessels responded and began picking up sheen and some recoverable oil using viscous sweep. Two CISPRI vessels, the HERITAGE SER-VICE and the MORIAH remained on scene throughout the night. An overflight the following day showed sheen and recoverable oil to the south of the spill site. The slick extended over an area 4 miles long by 500 yards wide. Unocal has taken the damaged pipe out of service and is using an alternative pipeline to transport oil.

#### Cordova Waste Oil

Spill Date: October 19, 1999

Product/Quantity: 500-1,000 gal. waste oil

Cause: shutoff switch failed

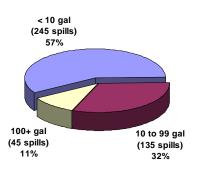
Higher than normal rainfall overwhelmed the oil water separator system at the Cordova Electric Cooperative causing the release of an estimated 500-1000 gallons of waste oil. The system began pumping water into a 10,000 gallon used oil tank. The automatic shutoff switch on the tank failed, resulting in the water filling the tank and displacing the oil. The oil spilled out the top into secondary containment, but the heavy rains flooded the secondary containment, washing the oil down the hill into a containment pond and Eyak Lake. High winds pushed most of the oil in the lake back into the pond, and trapped the remainder against the shore. Containment booms were placed and recovery began. Since the site was already being managed as a DEC Contaminated Sites project, Cordova Electric may manage the impacted soils as part of the long-term remediation plan. In addition, the adequacy of the oil water separator system and discharge into the lake will be addressed.

For more information, visit our website at http://www.state.ak.us/dec/dspar/perp

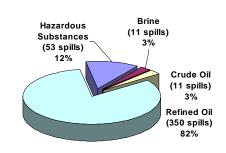
# **Data Summary**

# Oil and Hazardous Substance Spills October 1-December 31, 1999

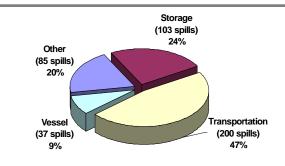
(releases reported in pounds were not included)



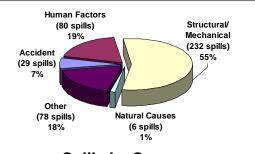
# Spills by Size Class



# **Spills by Product**



# Spills by Source



Spills by Cause

# Spill News

# **DRILLS**

Phillips Petroleum Tabletop Drill: On October 27th, the Department participated in a tabletop exercise conducted by Phillips Petroleum Company. The drill, held at the CISPRI Command Post, simulated the discharge of 100 barrels of diesel fuel, during a fuel transfer at the Tyonek Platform in Cook Inlet. Objectives of the drill included testing internal and external notifications, identifying discharge control procedures, demonstrating Area C-Plan familiarity, completing the initial assessment, demonstrating access to CISPRI resources and other contractors, wildlife protection and T-card use.

### **PREPAREDNESS**

HAZMAT Response. The Department has signed an agreement with IT Corporation to serve as a term contractor for emergency spill response services. The firm will establish an office in Anchorage and will provide Level A response capability to oil and hazardous material releases. The office will be staffed by four people trained to a Level A capability and available for response 24 hours a day. The company will also establish an equipment warehouse in Anchorage to stockpile chemical resistant pumps and hoses, and equipment to handle chlorine, ammonia and mining related chemicals.

## RESPONSE PLANNING

#### ALASKA INCIDENT MANAGEMENT SYSTEM (AIMS) WORK GROUP.

The AIMS Guide was developed by a work group composed of industry, spill coop, Federal, and State representatives. The guide was developed over a 15-month period, and encompasses agreed-upon ICS policies, concepts and organizational guidelines. The guide is not prescriptive, and provides general guidance for managing a response. The final version will be considered for inclusion into the Federal/State Unified Plan during the next plan revision. The guide is now available in electronic format at the following ARRT website address: <a href="http://www.akrrt.org/aim/aim\_toc.html">http://www.akrrt.org/aim/aim\_toc.html</a>

# PLANNING AND PREVENTION

Work Begins to Reduce Pollution from Cruise Ships. The Department of Environmental Conservation, EPA, Coast Guard, Southeast Conference, and over thirty cruise ship industry representatives met in Juneau on Friday, December 3, to discuss the waste management and disposal practices used by ships in Alaska and how to improve pollution prevention. The objectives of the meeting were to:

- identify waste streams and spill risks that could impact Alaska's air and water resources;
- develop pollution prevention and waste management solutions that will eliminate or reduce impacts. These could include, for example, better technology and management practices and/or more shore side treatment facilities;
- assess what process is needed to verify compliance and;
- 4. keep Alaskans informed. The public has a right to know.

During the forum, Commissioner Brown listed nine principles that should guide work on the cruise ship issues: 1) public right to know; 2) strong corporate commitment; 3) compliance with all applicable laws; 4) standards that reflect Alaska's unique environment; 5) going beyond compliance and pollution prevention; 6) local solutions to

# Spill News

pollution; 7) spill response preparedness; 8) verification of performance; and 9) incentives for performance.

The group agreed to address these issues in focused workgroups which will meet in the coming months. More information is available on the web at <a href="http://www.state.ak.us/dec/press/cruise/cruise.htm">http://www.state.ak.us/dec/press/cruise/cruise.htm</a>

Fact Sheet for Home Heating Tank Owners. The Department has produced a "Home Heating Oil Fact Sheet" that highlights simple prevention and inspection steps homeowners can take to prevent spills from heating fuel tanks. The procedures discussed include inspection of filling procedures, checking the flow lines, tank gauging, and fuel consumption monitoring. The fact sheet is available on the web at: <a href="http://www.state.ak.us/dec/dspar/perp/facts.htm">http://www.state.ak.us/dec/dspar/perp/facts.htm</a>

Kodiak Hazmat Project. The Kodiak Hazmat Project (a follow-on project to the Petersburg Pilot Project) was held in November 1999, and included ammonia training, non-regulatory technical assistance visits, Incident Command System training and a tabletop exercise. A



Kodiak Hazmat drill participants take air readings.

functional exercise was also conducted and featured the actual deployment of the Anchorage and Fairbanks Level A Hazmat Teams to a simulated ammonia release from a seafood processing facility in Kodiak. Participants included Federal, State, and local agencies, regional Hazmat Team members, and representatives from the seafood processing industry.



# All Significant Responses (October-December 1999)

#### **OCTOBER 1999**

10/7 Duke Island Ordinance

10/19 Cordova Waste Oil

10/23 Unocal Dillon Platform

10/31 Alaska Railroad Derailment

# **NOVEMBER 1999**

11/6 Alaska Railroad Spills

11/8 F/V Mitrophenia

11/21 Unocal Produced Water

11/30 Seldovia High School Fuel Spill

#### DECEMBER 1999

12/22 Alaska Railroad Derailment, Gold Creek

12/2 Freight Barge HOMEBAR 1

12/14 Mystery Sheen at Alyeska Marine Terminal

**PLEASE NOTE...** This report is based on provisional spill data. Readers should be aware that minor discrepancies in the data may exist.

# Spill Digest

# Oil and Hazardous Substance Spills

October 1-December 31, 1999

## HAZARDOUS SUBSTANCES

(does not include brine or releases reported in pounds)

Total Count: 53 To

Total Gallons: 11,423

#### Top 5 Substances

Product	Count	Gallons
Propylene Glycol	5	1,368
Ethylene Glycol (Antifreeze)	15	1,108
Sulfuric Acid	1	150
Sodium Hydroxide	1	150
Toluene 2,4-Diisocyanate	1	50

#### Top 5 Causes

Cause	Count	Gallons
Leak, Other	8	7,061
Seal Failure	5	1,030
Valve Faulty	3	1,005
Corrosion	2	440
Tank Leak	1	150

#### Top 5 Sources

Source	Count	Gallons
Industrial Vehicle	9	1,655
Home/Office/Business	2	801
Military Facility	1	250
Refinery	1	150
Fuel Station	1	150

### CRUDE AND REFINED OIL

Total Count: 362 Total Gallons: 148,032

#### Top 5 Substances

Product	Count	Gallons	
Diesel	168	143,859	
Hydraulic Oil	60	1,176	
Waste Oil (All Types)	10	1,124	
Crude	11	684	
Gasoline	59	415	

#### Top 5 Causes

Cause	Count	Gallons
Derailment	2	135,000
Valve Faulty	22	2,454
Tank Overfill	41	1,504
Line Ruptured	44	1,404
Leak, Other	38	1,140

#### Top 5 Sources

Source	Count	Gallons
Train/Engine/Car	6	135,340
Home Heating Tank	18	2,529
School Tank/S	5	1,813
Power Facilities	5	1,558
Industrial Vehicle	76	1,337

# 2000 Dri ll Calendar

# DRILLS

Feb 28-Mar 10 Northern Edge Exercise (USCG), Sitka

March 8 Worst Case Drill (Tesoro), Nikiski

April 3-4 CANUSNorth Exercise (USCG), Anchor-

age

April 6 Weapons of Mass Destruction Exercise

(Municipality of Anchorage), Anchorage

April 24 Hazmat Response Exercise (USCG),

Unalaska

April 17-20 Copper River Delta Equipment Deployment

& GRS Exercise (TAPS Shippers),

Cordova

### SEND COMMENTS AND SUBSCRIPTION REQUESTS TO:

Camille Stephens, 410 Willoughby Ave., Juneau, AK 99801

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email: cstephen@envircon.state.ak.us

# At a glance... October 1 - December 31, 1999

# Spill Summary

Total Spills Reported\* (includes 11 Brine releases): 426
Oil -- Total Gallons Released 148,032
Hazardous substances\* -- Total Gallons Released 11,423
Brine -- Total Gallons Released 11,157

#### Oil Releases

Total Spills Reported: 362

Largest Volume Released by Category

Substance (168 spills; 143,859 gallons)

Cause (2 spills; 135,000 gallons)

Derailment

Source (6 spills; 135,340 gallons)

Train/Engine/Car

Largest Single Release

Diesel; 120,000 gallons

# Hazardous Substance Releases (excluding brine)

Total Spills Reported:
Largest Volume Released by Category

53

Substance\* (5 spills; 1,368 gallons)

Propylene Glycol

Cause\* (8 spills; 7,061 gallons)

Leak, Other

Source\* (9 spills; 1,655 gallons)

Industrial Vehicle

Largest Single Release\* Propylene Glycol; 800 gallons



Prevention and Emergency Response Program Division of Spill Prevention and Response Department of Environmental Conservation 410 Willoughby Avenue Juneau, AK 99801-1795

http://www.state.ak.us/dec/dspar/perp/perphome.htm

Phone: 907-465-5220 FAX: 907-465-5244

mail label

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**Insert - Quarterly Data** 

<sup>\*</sup>excludes 17 releases reported in pounds

<sup>\*\*</sup>excludes "Other" or "Unknown"